

Abstract

An edge-triggered flip-flop circuit in which a pair of capacitors are alternately charged and discharged to voltages approximating supply rail values and, in combination of with a small number of switches, present high or low impedance paths for input signal transitions of a predetermined polarity to trigger state changes. In an alternative embodiment large switching capacitors are avoided in a circuit that employs a pair of pass-transistor configurations to connect respective capacitors to output terminals of a bistable device. The voltages on the capacitors track the corresponding bistable device output voltages when the input signal is in a given state (illustratively low), and store the value of the corresponding voltage when turned off by the (illustratively high) other state of the input signal. Then, the voltage on the capacitors and the selected input signal transition is used to effectively trigger a transition in the bistable device.